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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/790,056

03/02/2004

Hidehiro Fukushima

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9831

24956

7590

04/30/2008

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SUITE 370  
ALEXANDRIA, VA 22314

EXAMINER

ADDY, THJUAN KNOWLIN

ART UNIT

PAPER NUMBER

2614

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/790,056	<b>Applicant(s)</b> FUKUSHIMA ET AL.	
	<b>Examiner</b> THJUAN K. ADDY	<b>Art Unit</b> 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/02/2004</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 06/26/2003. It is noted, however, that applicant has not filed a certified copy of the 2003-181993 application as required by 35 U.S.C. 119(b).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Hotta (US 6,836,481).

3. In regards to claim 1, Hotta discloses a method for distributing data multicast sent from a source addressed to a receiving terminal which does not support a multicast function via gateway (See col. 1 lines 8-16), the multicast distribution method comprising the steps of: detecting a data request packet sent from receiving terminal registered in a first network (e.g., wide area network) to the source at a first gateway (See Fig. 5, Fig. 8, and server-side gateway 11) located on transfer path of packet

between the receiving terminal and the source; retaining address of the receiving terminal included in the data request packet; detecting registration message which the receiving terminal issued to a second network (e.g., local area network); sending a receive state information packet including information relating address information of the source and destination address information of data multicast sent to a second gateway (See Fig. 5, Fig. 8, and client-side gateway 13) located on transfer path of packet between the second network and the source; sending from the second gateway a distribution request packet of multicast data based on received receive state information packet to the source; and converting address information of multicast data packet sent from the source to address of the receiving terminal and sending it to the receiving terminal (See col. 2 lines 35-41 and col. 3-4 lines 44-12).

4. In regards to claim 2, Hotta discloses a multicast gateway apparatus, which transfers a data packet multicast sent from a source addressed to a receiving terminal requesting to receive the data packet, comprising: a packet receiving part which receives a packet; a packet discrimination part which discriminates a kind of received packet; an access terminal management table which retains address of the receiving terminal which is a source of received packet when received packet is an access request packet to the source; a receiving terminal management table which, when received packet is a registration request packet of receiving terminal, retains address of moving destination of the terminal included in the registration request packet; a data transfer processing part which, when received packet is a data packet multicast sent, sets address of moving destination of the receiving terminal as a destination address for

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the received data packet referring to the access management table and the receiving terminal management table; and a unit for sending data packet with the address set to the receiving terminal (See col. 3-4 lines 44-12).

5. In regards to claim 3, Hotta discloses a multicast gateway apparatus, further comprising: a unit for receiving the control packet of mobile communication protocol which the receiving terminal sends and receives; a unit for adding address information of the multicast gateway apparatus to the received control packet of mobile communication protocol and sending the control packet; a unit for receiving the control packet of mobile communication protocol added with address information of the multicast gateway apparatus; a unit for retaining address information of the multicast gateway apparatus included in the received control packet of mobile communication protocol added with address information of the multicast gateway apparatus; and a unit for deleting address information of the multicast gateway apparatus included in the received control packet of mobile communication protocol added with address information of the multicast gateway apparatus (See col. 4 lines 50-64 and col. 5-6 lines 66-45).

6. In regards to claim 4, Hotta discloses a multicast gateway apparatus, further comprising: a unit for monitoring packet sent and received between the receiving terminal and the source; and a unit for generating a distribution packet which indicates distribution control of data packet multicast sent to the nearest multicast router apparatus based on monitoring result of the monitoring unit (See col. 3-4 lines 44-12).

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7. In regards to claim 5, Hotta discloses a multicast gateway apparatus, wherein the control packet is a packet of group management protocol (See col. 4-5 lines 65-16).

8. In regards to claim 6, Hotta discloses a router apparatus which is provided with a relaying function of data packet multicast sent (See Fig. 5 and col. 4 lines 50-64), comprising: a packet receiving part which receives packet; a packet discrimination part which discriminates a kind of received packet; an access terminal management table (See Fig. 8 and management table 18) which, when received packet is an access request packet to a source of multicast data, retains address of receiving terminal which is a source of the received packet; a receiving terminal management table (See Fig. 8 and management table 17) which, when received packet is a registration request packet of receiving terminal, retains address of moving destination of the terminal included in the registration request packet; a data transfer processing part which, when received packet is a data packet multicast sent, sets address of moving destination of the receiving terminal as a destination address for the received data packet referring to the access management table and the receiving terminal management table; and a unit for sending data packet with the address set to the receiving terminal (See col. 5-6 lines 66-45).

9. In regards to claim 7, Hotta discloses router apparatus, further comprising: a unit for receiving the control packet of mobile communication protocol which the mobile terminal sends and receives; a unit for adding address information of the router apparatus to the received control packet of mobile communication protocol and sending the control packet; a unit for receiving the control packet of mobile communication

protocol added with address information of the router apparatus; a unit for retaining address information of the router apparatus included in the received control packet of mobile communication protocol added with address information of the router apparatus; and a unit for deleting address information of the router apparatus included in the received control packet of mobile communication protocol added with address information of the router apparatus and sending the control packet (See col. 4 lines 50-64).

10. In regards to claim 8, Hotta discloses a router apparatus, further comprising: a unit for monitoring packet sent and received between the receiving terminal and the source; and a unit for generating a control packet which indicates distribution control of data packet multicast sent to another router apparatus existing on network based on monitoring result of the monitoring unit (See col. 4 lines 50-64).

11. In regards to claim 9, Hotta discloses a router apparatus, wherein the control packet is a packet of multicast path control protocol (See col. 4-5 lines 65-16).

12. In regards to claim 10, Hotta discloses an agent apparatus in a network to which a mobile communication protocol is applied provided with a function defined by the mobile communication protocol, comprising: a packet receiving part which receives packet; a packet discrimination part which discriminates a kind of received packet; an access terminal management table which, when received packet is an access request packet to a source of multicast data, retains address of receiving terminal which is a source of the received packet; a receiving terminal management table which, when received packet is a registration request packet of receiving terminal, retains address of

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moving destination of the terminal included in the registration request packet; a data transfer processing part which, when received packet is a data packet multicast sent, sets address of moving destination of the receiving terminal as a destination address for the received data packet referring to the access management table and the receiving terminal management table; and a unit for sending data packet with the address set to the receiving terminal (See col. 2 lines 35-41 and col. 3-4 lines 44-12).

13. In regards to claim 11, Hotta discloses an agent apparatus, further comprising: a unit for adding address information of the agent apparatus to the control packet of mobile communication protocol and sending the control packet; a unit for receiving the control packet of mobile communication protocol added with address information of the agent apparatus; a unit for retaining address information of the agent apparatus included in the received control packet of mobile communication protocol added with address information of the agent apparatus; and a unit for deleting address information of the agent apparatus included in the received control packet of mobile communication protocol added with address information of the agent apparatus and sending the control packet (See col. 4 lines 50-64).

14. In regards to claim 12, Hotta discloses a service system which distributes information to a receiving terminal which is not provided with a receiving function of multicast data using multicast communication, comprising: a distribution server which multicast sends data packet including information to provide; a home agent located in a home network to which the receiving terminal belongs; a foreign agent located in a foreign network to which the receiving terminal can move; a first multicast gateway



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apparatus located on a communication path between the home agent and the distribution server; a second multicast gateway apparatus located on a communication path between the foreign agent and the distribution server; wherein the first and the second multicast gateway apparatuses comprise a unit for converting data packet multicast sent to unicast data, and the first multicast gateway apparatus, on receiving a registration message which the receiving terminal issued for the foreign agent, transfers address information of the distribution server and home address information of the receiving terminal to the second gateway, the second gateway sends a distribution request packet of multicast data to the distribution server, and further converts multicast data sent from the distribution server to unicast data and sends the unicast data to the receiving terminal (See col. 2 lines 35-41 and col. 3-4 lines 44-12).

15. In regards to claim 13, Hotta discloses a method for providing service which distributes data multicast sent from a distribution server to a receiving terminal which is not provided with a receiving function of multicast data, comprising the steps of: detecting a data request packet sent from a receiving terminal registered in a first network to the distribution server at a first gateway located on a transfer path of packet between the receiving terminal and the distribution server; retaining address of the receiving terminal included in the data request packet; detecting that the receiving terminal moved to a second network by a registration message which the receiving terminal issued to the second network; sending address information of the distribution server and destination address information of data to be multicast sent to the second gateway located on a transfer path of packet between the receiving terminal after

moving to the second network and the distribution server; sending a distribution request packet of multicast data to the distribution server from the second gateway; converting destination address information of multicast data sent from the distribution server to address of the receiving terminal; and sending multicast data with the destination address converted to the receiving terminal (See col. 1 lines 8-16, col. 2 lines 35-41, and col. 3-4 lines 44-12).

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Buchsbaum et al. (US Patent Application, Pub. No.: US 2002/0136201 A1) teach a satellite based content distribution system using IP multicast technology. Lim (US 7,221,674) teaches a method and system for multicasting and broadcasting IP packet in mobile communication system, and terminal thereof. Buchsbaum et al. (US 7,161,934) teach a satellite based content distribution system using IP multicast technology.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to THJUAN K. ADDY whose telephone number is (571)272-7486. The examiner can normally be reached on Mon-Fri 8:30-5:00pm.

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thjuan K. Addy/  
Primary Examiner, Art Unit 2614